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ABSTRACT

The Parameters of a National Minimum Hourly Wage^{*}

Both academic and political debates over the minimum wage generally focus on the minimum wage rate. However, the minimum wage is a complex institution composed of a wide variety of parameters. In this note, I show that nominal rates provide a very crude picture of minimal compensation and of actual employer cost by the comparison of the French, British and US Federal national minimum hourly wages. The extent of their coverage, enforcement procedures, and how the “wage” is defined differ widely between countries. Taking these parameters into account can even alter the comparative hierarchy based on nominal rates alone.

JEL Classification: J3, J8

Keywords: minimum wage, exemptions, deductions, international comparisons

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Interest in the issue of national minimum wages has been growing since the late 1990s. The increase of wage inequality and the limits of redistribution, in a context characterised by objectives of strict public account balance, incite governments to implement or to raise minimum wages. Ireland and the United Kingdom introduced a national minimum wage at the end of the previous century. There is vigorous debate in the United States on the subject of a steady progression of the federal minimum wage. In the United Kingdom, if elected in 2015, the Labour commits to significantly raising the minimum wage. Swiss trade unions have advocated a minimum hourly wage of 22 Swiss francs, which would have been the highest level in the world if the proposal had not been sacked by a vast majority in the referendum held in May 2014. Important discussions are currently under way in Germany on a definition of its first federal minimum wage, a key project of the CDU-SPD coalition.

The economic literature, both academic and institutional, mainly focuses on the rate of the minimum wage, or more precisely on the rates for junior and adult workers.¹ The aim of this note is to stress that the minimum wages are governed by a large variety of parameters, conventions and exemptions, which are crucial as well. Three large countries with an hourly national minimum wage are compared: France, the United Kingdom and the United States. The treatment of “tipped employees” (e.g., lavatory attendants) is a clear illustration of diversity. In the United Kingdom, tips are excluded from the calculus: i.e., the employer must pay the full minimum wage from his payroll. In the United States, the employer can also subtract tips in complying with minimum wage regulations, but he still has to pay a floor amount in wages. In France, an employer can comply with the minimum wage rules if he provides a wage at least equal to the difference between the minimum wage and tips received by the employee; if tips customers give in cash exceed the minimum wage, then the employer may pay no wage at all for hours worked.

National legislation and jurisprudence governing the minimum wage are so vast that I make no attempt here at exhaustiveness. My purpose is rather to disentangle some of the principal parameters influencing its effect. In the first section, I review the general definition of the minimum wage and how it is set and enforced; in the second section I detail the coverage of the minimum wage, and in the third I examine the definitions of “paid periods”. The section four devotes attention to the very complex issue of defining “wages” and employer “costs”. Followed by a conclusion, the final section is a discussion of the statistical definition of a “worker paid at the minimum wage”.

1. How is the minimum wage set and enforced?

The purpose of national (or federal) minimum wage regulation is to ensure a fair wage for most employed workers. In the three countries being compared, the national minimum wage is a gross wage reference for one hour of work, regardless of the payment scheme (fixed wage, sales commission, piece rates...). The national minimum wage is not the sole

¹ See, for example, one of the most cited articles on the minimum wage: Dolado *et al.* (1996) and the comparative statistics most often used, "Earnings: Minimum wages relative to median wages," *OECD Employment and Labour Market Statistics*.

reference for minimal pay. In the United States, numerous states and some local communities set minimum wages above the federal level. In France², most of the workers are covered by branch agreements, which may include floor wages that are differentiated according to occupation, seniority, education and, more rarely, by location.

The means of instating the normal rate of the minimum wage vary widely between countries. In the United States, the Federal Minimum Wage rate is set by law voted by Congress. In the United Kingdom, the government can increase the minimum wage at any time, usually in October. An independent body, the Low Pay Commission, advises the government with respect to the National Minimum Wage. Nine Low Pay Commissioners from a range of employee, employer and academic backgrounds sit on this commission, which also supports research on the impact of the minimum wage.

In the past few years, the French minimum wage (known as the SMIC, the *Salaire minimum interprofessionnel de croissance*) has been increased essentially according to an automatic formula. Each year on the first day of January, its increase equals the evolution of the INSEE's consumer price index³ (excluding tobacco) for households in the first quintile of income distribution, increased by half the gain of purchasing power of the average hourly salary of workers and employees. However the revalorisation of the SMIC can occur in-year when this consumer price index reaches a level corresponding to a price increase of at least 2 % in comparison to the one observed at the immediately prior setting of the SMIC. In theory, the French government may decide upon a supplementary revalorisation at any moment. Since 2009, it is advised by a group of experts, which has five sitting members, currently all affiliated with administrations or universities and of none or minimal experience as private-sector employees or employers. This group has no budget to fund research.

In May 2014, the “normal” rate of the gross hourly minimum wage was €9.53 in France. It was significantly higher – on a PPP or exchange-rate basis – than the British Minimum Wage of £6.31 and the US Federal Minimum Wage of \$7.25. The automatic indexation of the French national minimum preserves its purchasing power whatever the business cycle, while the British minimum wage declined in real terms during the Great Recession (fig. 1).

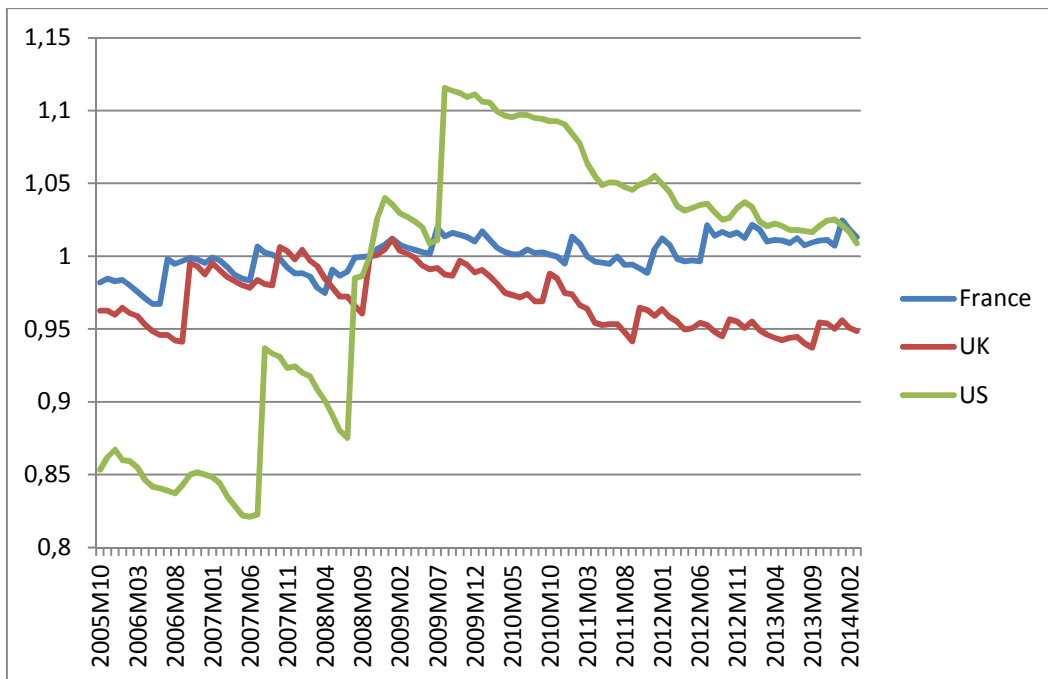
The enforcement of a minimum wage implies that penalties may be assessed on employers. In comparison to France, the avenues of employee complaint and the magnitude of the employer penalties apparently amply favour the employee in the United Kingdom and the United States.

² For a review on the role of collective agreements in fixing wage floors in Europe, see Kampelmann et al. (2013).

³ The INSEE's index differs from the European Harmonised Index of Consumer Prices. For example, when a drug is no longer reimbursed by the Social Security, the HICP increases since the price paid by the patient out of pocket is larger. In this case, the INSEE's index is not affected because it is based on the market price of the drug, which remains unchanged. Consequently, the annual EHPI inflation rate over the past decade has been about 0.1/0.2% higher than the index used to revalorise the French Minimum Wage.

Figure 1. Normal rates of the hourly national minimum wage deflated by the HICP.

France, United Kingdom, United States. October 2005-March 2014. Base 1 = Oct. 2008



Source: Author's calculus using Eurostat, Harmonised Indices of Consumer Prices (HICP), extracted on 19.05.14.

In France, the maximum fine may reach 1.500 Euros for each employee concerned. The Labour and Social Security inspections are in charge of enforcing the law. In 2012, according to its report to the ILO, the Labour inspection transmitted 58 *procès-verbaux* to the justice for violations of the SMIC. A worker who wants to protest can contact, in confidence, the labour inspection (in French) or can lodge directly a complaint in an Employment Tribunal (*Le Conseil de Prud'Hommes*).

In the United Kingdom, the financial penalty has been increased in March 2014. It can amount to 100% of the unpaid wages owed to workers, up to £20,000 per worker. The fiscal administration (HM Revenue & Customs) is in charge of enforcing the law. Anyone who believes he is not being paid at the national minimum wage may call, in confidence, on a free helpline for advice in over 100 languages! For the fiscal year 2012-2013, HMRC investigated 1693 complaints resulting in 708 employers receiving automatic penalty charges.

The US Department of Labor's Wage and Hour Division is responsible for enforcing the FLSA. Here again, a worker may call a national telephone number and be redirected to local offices. The manual for filing a complaint is available in more than ten languages (in Spanish, Chinese, Russian... but not in French). Wilfully paying less than required by the Fair Labor Standards Act (FLSA) is a criminal offence. In addition to having to pay back wages and "liquidated damages" to employees, criminal penalties are a fine of up to \$10,000 per count

on the first conviction, and a fine of up to \$10,000 or a term of imprisonment of up to six months, or both, on all convictions after the first one.

In all three countries, the compliance to the minimum wage regulation is monitored by verifying that the gross wage divided by the number of hours worked during the reference pay period (a week, one month...) is above the gross minimum hourly wage. As we shall see in the following sections, the definitions of the numerator, as well as the actual coverage, are extremely heterogeneous. They are thus crucial in assessing how comparatively attractive a national minimum wage really is.

2. Coverage: exemptions and reduced rates

The national minimum wage is not universal. It suffers from various exemptions and reduced rates.

2.1 Important exemptions especially in the United States

By definition, self-employed individuals are not concerned by the minimum wage. However, disputes frequently arise when there is doubt as to whether the worker is self-employed or an employee of a firm. There is no reliable statistic to measure the incidence of fake self-employment. Some disputes emerge, as well, for interns who are in general not covered by the minimum wage. In addition, workers in very specific statuses are not covered by minimum wage regulation. Among the principal examples are the members of a religious community and prisoners.

United States have introduced significant additional exemptions. FLSA exemptions include homeworkers making wreaths, babysitters on a casual basis, companions for the elderly or infirm, newspaper delivery boys, farm workers employed on small farms and employees of particular seasonal amusement or recreational establishments. However, the most general exemption concerns workers in firms that have one employee or less than \$500,000 yearly turnover and are not involved in inter-states activities.

In France, two important categories of employees are not covered by the SMIC: sales representatives and activity organisers in day or holiday camps. Activity organisers and directors can have an educational commitment contract, *Contrat d'Engagement Éducatif* if they work occasionally (i.e. less than 80 days per year)⁴. There is no hourly wage reference. They can be paid as little as 2.2 hours at the SMIC for a complete workday. The purpose of such an exemption is to bypass the relatively high minimum wage for youth (see below). There is no hourly reference for sales representatives because their number of worked hours is not considered measurable. The French national minimum wage does not apply in one of the overseas departments, as well: Mayotte, where a *SMIG* is fixed by the local representative of the French Government (at about 2/3 of the SMIC in May 2014).

⁴ According to André Nutte's report (*Rapport du groupe de travail sur le contrat d'engagement éducatif*, July 2012) for the French ministers of Labour and Education, 3.5 million children are involved in day or holiday camps each year. For holiday camps with housing (1.8 million children), it estimates that roughly 250,000 organizers and directors (excluding interns) were engaged during the academic year 2009-10.

2.2 Reduced rates for non-exempted workers

In the three countries, reduced rates apply for youth and apprentices (since 2010 in the United Kingdom). Youth rates are much lower in the United Kingdom and concern older young workers as well (Table 1). In France on the contrary, the youth rate is limited to minors, and the reduction can only be by 20% at most. In the United States, full-time student working part time may also be paid at 85% of the minimum wage in retail, service stores, agriculture, colleges and universities.

Table 1: youth rates as % of the normal rate (May, 2014)

Age	France	United Kingdom	United States (FLSA)
20	100	~ 80	100
19 or 18	100	~ 80	~ 60 (first 90 days)
17	90 (working experience < 6 months)	~ 60	~ 60 (first 90 days)
Under 17	80 (working experience < 6 months)	~ 60	~ 60 (first 90 days)

As in numerous countries with a minimum wage, reduced rates apply for apprentices or workers in vocational training. The practices are highly heterogeneous. In the United States, the FLSA authorises the payment of sub-minimal wages – at rates not less than 75 percent of the applicable minimum wage – to a student-learner,⁵ once the employer has applied for an authorising certificate from the US Department of Labor. In France and in the United Kingdom, reduced rates for apprentices involve recognised programs. These rates depend on the age of the apprentice and his year in the program. In both countries, reduced rates are particularly drastic for the apprentices in their first year (Table 2).

Table 2: Rounded reduced rates as % of the normal rate of the minimum wage for apprentices according to age and year. France, United Kingdom.

	Under 18	18	19-20	21 or more
<i>United Kingdom</i>				
Year 1	40	40	40	40
Years 2 and 3	40	40	80	100
<i>France</i>				
Year 1	25	40	40	55
Year 2	35	50	50	60
Year 3	55	65	65	80

⁵ A student-learner is a student who is at least sixteen years of age.

In the United States, workers with disabilities can be paid at special minimum wages as well. This is no longer the case in France, but a part of the wage of a disabled worker can be funded by a governmental body.

3. Worked hours and paid annual leave or holidays

The European labour regulations, especially concerning workplace safety, and the jurisprudence of the European courts have progressively homogenised the definitions of salaried/time/paid/output hours. The European definition of “work time” is quasi-similar to the one applied in the United States. Basically, “hours worked” to be paid include hours spent at work, required for work or on standby near the workplace (but not on rest breaks), hours when kept at the workplace even though unable to work, hours travelling on business during normal working time, training (or travelling to training) during normal working time, as well as hours awake and working during usual sleeping time.

In France and in the United Kingdom, workers are entitled to paid annual leave: 5 weeks in France per year and 5.6 weeks in the UK, which amounts to 28 days per year if the employee works a 5-day week (5.6 x 5). For short-term contracts, a French employer can refuse to pay days off, but in this case he must pay a 10% holiday bonus at the end of the contract. In France moreover, the 1st of May must be paid if it falls on a “normal” working day, and up to nine additional public holidays⁶ (such as the 14th of July, etc.) are also paid to employees who have at least three months tenure. For a worker employed year round, the actual rate of the hourly minimum wage, including paid annual leave and holidays, is thus increased by 12% in the United Kingdom and by up to 15% in France. The United States practice contrasts with the European one: the employers have no obligation to pay for annual leave or holidays.

Table 3: Mandatory annual paid leave and bank holidays

	France	United Kingdom	United States
Vacations (<i>prorata temporis</i>)	5 weeks	5.6 weeks	0
Public/Bank holidays	up to 10 days	0	0

4. Vast differences in the definition of “wage”

While the definition of worked hours is quite homogenous, the calculus of the wage used for complying with minimum wage regulations is dramatically different in the three countries. In fact, workers may receive payment in a variety of forms from their employers, as well as directly from customers. In addition, they may be given significant benefits in kind. Whether or not such payments from various sources are deducted massively affects the true minimum wage for numerous occupations. Table 4 shows what types of benefits can or

⁶ In Alsace and Moselle (North-East of France), some German rules (*droit local*) still apply. So two additional paid days are non-worked: the Good Friday and the 26th of December.

cannot be counted as part of the minimum wage. This table is not exhaustive, but it does cover some of the main elements of compensation.⁷

Table 4: Several types of compensation, counted (or not) as part of minimum wage pay in compliance with national regulations

	France	United Kingdom	United States (FLSA)
Basic pay	Yes	Yes	Yes
Sales commissions	Yes	Yes	Yes
Tips and gratuities	Yes	No	Up to ~70% of the normal rate
Performance-related pay	Yes	Yes	Yes, if regular
Annual bonuses	Yes	Yes	Yes
Specific schemes	Participation, profit-sharing: no	Rewards under staff suggestion schemes: no	
Any premium element for working at special times	No	No	Yes, if regular
Overtime premium	No	No	No
Allowances on top of basic pay: for working unsocial hours, in a particular area, in dangerous conditions, being 'on call', performing special duties	No	No	Yes, if regular
Luncheon vouchers, gift tokens or other vouchers of fixed value that can be exchanged for money, goods or services	Yes ⁸	Yes	Yes
Benefits in kind:			
Accommodations	Yes, up offset rates	Yes, up offset rates	Yes, if reasonable or fair
Meals	Yes, up offset rates	No	Yes, if reasonable or fair
Car or fuel for personal use	Yes	No	Yes, if reasonable
Other	In general, yes	No	In general, yes

A striking difference is the treatment of the tips given by the clientele. Basically, a cloakroom attendant receives the minimum wage plus tips in the United Kingdom. In France, the job contract can stipulate that the employee be only paid in the cash tips she or he receives; in

⁷ The interested readers can obtain full comprehensive information for the US in the Department of Labor's *Field Operation Handbook*, chapter 30 (http://www.dol.gov/whd/FOH/FOH_Ch30.pdf). For France, the Articles 3251-1 to L. 3252-13 and R. 3252-1 to R. 3252-49 of the Labour Code (<http://www.legifrance.gouv.fr/initRechCodeArticle.do>) govern the general framework. The British governmental website, at <http://www.nidirect.gov.uk/index/information-and-services/employment/employment-terms-and-conditions.htm>, provides comprehensive information on UK regulations.

⁸ For the luncheon vouchers (*Titres restaurants*), only a part – about one-half – can be deducted.

case of disagreement with the employer, the worker has to prove that the amount of tips he or she collected did not reach the level of the minimum wage.

United Kingdom has also the strictest rules for benefits in kind: meals, the use of a car, fuel, etc. cannot be counted as contributing to minimum wage pay; whereas, in France and in the United States they can. US employers have comparatively the widest latitude of manoeuvre to deduct payments in kind from the minimum wage pay. In France, employers face some limitations to potential deductions. The high nominal rate of the minimum wage is eroded by a large variety of offsets that differ depending on the occupation, and even on the location or on the type of compensation, generally resulting from agreements between employers and trade unions that are subsequently made mandatory by the government. The objective is to compress wages, and thus actual labour costs, in labour-intensive activities that are keys for the French economy, including tourism and agriculture, which face harsh international competition. The consequence is an extremely complex (and sometime exotic) system. For example, in May 2014, an employer can deduct from the wage of a cook in a restaurant €3.51 for each meal, whatever the number of worked hours and the actual cost of the meal to the employer. Each day, and regardless of the working time, an employer of a grape-cutter in the Gers *département* can subtract €1.01 for a breakfast, €5.18 for a lunch and €5.18 for a dinner, but he has to provide two litres of wine or pay €0.61... A consequence of this complexity is a noise in employee and employer declarations in the labour force and in labour cost surveys, as well as in the social security records. Some employers or workers declare tips and benefits in kind, some do not at all or only partially, etc. The treatment of this noise by French administrations and researchers is annoying. Most of the statistics on labour costs and earnings and evaluations of the impact of the minimum wage are purged of "absurd" observations⁹. They may thus fail to take into account as many as hundreds of thousands very low-paid employees in France, mostly youth.

Another consequence of the heterogeneity in the treatment of deductions from minimum wage pay is the inconsistency of the data provided by the OECD for comparing earnings and labour costs at the minimum wage between countries. These data scarcely take into account the differences in definitions of the wage. In fact, it is impossible to provide a unique, comparable measure of the minimum wage. In practice, a more consistent method of comparison would be to focus on several key occupations, then calculate for each the "true" value and cost of the minimum wage.

An additional dimension makes the comparison of labour costs tricky. In the United Kingdom and in France, employers' social contributions depend on various parameters and allowances. In France, they can depend on occupation, inclusion or not of benefits in kind or tips... Consider again the example of a tipped worker. She or he is paid at the minimum wage in the United Kingdom, and tips must be at least equal to the minimum wage in France. The British employer does not have to pay any social contributions on a weekly wage under a threshold (£153 in May 2014), and in most cases pays 13.8% above this threshold, based on

⁹ Hourly wages below 0.8 or 1xSMIC cut-off points; observations with missing information on hours (e.g. for the Contrat d'Engagement Educatif).

the minimum wage (therefore, excluding tips). In France, the employer does not have to pay any gross wage, but may have to disburse social contributions when the employer does not know the amount of tips the employee has received, as if the worker were paid at a flat, arbitrary level called the *forfait*. For the sole case of hotels, cafés and restaurants, there is large a variety of *forfaits*, and thus a variety of levels of social contributions according to whether the employee's status is part-time or full-time, the work on daily or monthly basis, the number of worked days in a month, the occupation,¹⁰ and even the classification of the hotel (stars).

The comparisons of costs for workers employed by households are complex as well. Transfers or tax credits can massively alleviate their burden for households. Here again, France provides extreme illustrations: in May 2014, the final cost of a baby sitter working 25 hours a month for a family with two active parents and a child younger than three, can be less than €70.

5. The different statistical definitions of a minimum wage earner

Eurostat no longer publishes statistics of the number of workers paid at the minimum wage in EU countries. National methodologies are too different. Actually, these methodologies reflect different views and definitions of a worker paid at the minimum wage rate.

In the United States or the United Kingdom, the motivation is to measure roughly how universal is the minimum wage coverage. However, the sources and measures highly differ. Using the Annual Survey of Hours and Earnings (ASHE),¹¹ the British Office for National Statistics (ONS, 2013) reports the number of employees paid below the minimum wage rates (thus, the youth rate if the worker is young). These employees represent about 1% of the employed workforce. Using the Current Population Survey, the US Bureau of Labor Statistics (BLS) provides the share of employees with wages -excluding tips, commissions, and overtime pay- at or below the normal rate of the federal minimum wage. According to BLS (2014), 2% of employees were paid at the minimum wage and 2.3% below in 2013.

In the French view, an employee paid "at the minimum wage" is a worker directly affected by the previous increase in the minimum wage. Two surveys – one conducted by the DARES and the other by the INSEE – provide estimates of the proportion of workers concerned: the Activity and Employment Conditions of the Workforce (ACEMO) and the Survey on the Costs of Labour and Wage Structure (Ecmoss).¹² This proportion is significant: about 9%, and can rise to 16%, depending on the magnitude of the last increase in the national minimum wage. Some analysts who claim that the French minimum wage is terribly binding exploit this large proportion. However, the French statistics aim at capturing the overall direct influence of the national minimum wage on the workers. For this reason, among employees affected by the minimum wage, there are both workers paid below or above the minimum wage when a

¹⁰ Lavatory attendant, cloakroom attendant, busboy, assistant waiter, bar-backs, bellboy, bellhop, doorman, commis wine waiter, sommelier...

¹¹ See Gregg *et al.* (2014) for a presentation of the statistical sources for wages in the UK.

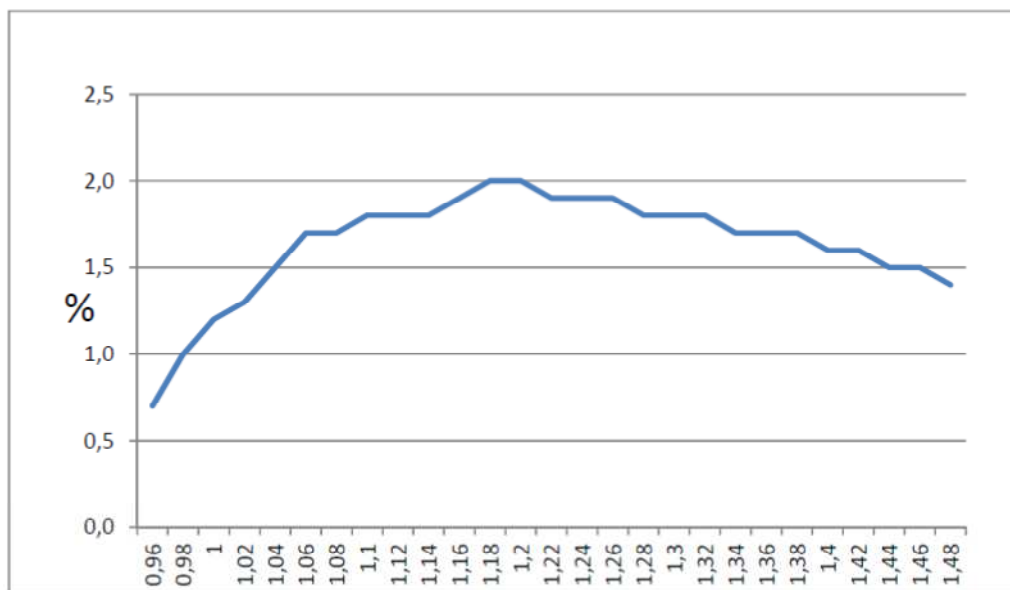
¹² See Dares (2012) for a presentation.

part of their remuneration is indexed to the SMIC. About 30% earn hourly more than 1.2xSMIC according to employers' declarations in firms with 10 or more employees (Dares, 2012). Typically, a vendor paid a fixed amount, equal to say half the SMIC, plus a commission on each sale, can earn much more than the SMIC, but he or she is considered as being "paid at the SMIC".

Despite the noise in employers' declarations (see above), the French administrative Annual Declaration of Social Data (DADS), which are exhaustive records from most employers for workers hired on a private contract, help to provide statistics that are more in the spirit of the UK or US approach. Figure 2 shows the distribution of yearly-average hourly wages in 2010 (when the number of hours is known) weighted by the duration of the job. The wages hierarchy in France is compressed, but there is no significant concentration around the minimum wage rate. With this definition, roughly 3% of the jobs (private contracts, except apprentices and households' or agricultural employees) were compensated in France below the normal rate of the minimum wage.

Figure 2: France, 2010.

**Distribution of gross hourly compensation according to employers' declarations.
From 0.96 to 1.50 normal rate of the hourly minimum wage.
(Workers with a private contract, excluding apprentices)**



Reading: Workers with a private contract, excluding apprentices, and households' and agricultural employees.

The distribution of ratio annual gross compensation (including benefits in kind, overtime bonuses, real tips or *forfaits...*)/number of paid hours by a worker in a given firm, according to the mandatory declarations of the employers to the Administration. A worker with two or more employers in a year appears twice or more. Data are weighted by the duration of the job. The base 1 is the normal rate of the hourly minimum wage from January 1, 2010.

Source: DADS-INSEE 2010, Author's estimation.

Here again, a consistent portrait of the minimum wage requires an effort to construct homogenous definitions across countries of the minimum wage earners.

Conclusion

The minimum wage cannot be reduced to the standard nominal rates. On the contrary, various parameters, including paid annual leave or the definition of the wage, dramatically affect the generosity for workers and the costs to employers of the national minimum wage. The comparison of the French and UK systems suggests a trade-off between relatively high minimum wage rates that are moth-eaten by deductions and exemptions, and relatively low rates with little room of manoeuvre for employers.

Consequently, academic and political debates on the minimum wage should be broadened to include the complete set of parameters. This note also highlights the caveats that concern currently available comparative statistics on the national minimum wage. It would be useful if international organisations (ILO, OECD, Eurostat, United-Nations) were to work together to develop and provide consistent comparative statistics.

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